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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2022–0532; Special Conditions No. 25–835–SC]

Special Conditions: Airbus SAS A320–200 Series Model A320–251N, –252N, –253N, –271N, –272N, –273N Airplanes and A321–200 Series Model A321–251NX, –252NX, –253NX, –271NX, –272NX Airplanes; Flight Attendant Seat Mounted on Movable Interior Structure

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Airbus SAS (Airbus) A320–200 Series Model –251N, –252N, –253N, –271N, –272N, –273N (known as A320neo) airplanes and A321–200 Series Model –251NX, –252NX, –253NX, –271NX, –272NX (known as A321neo) airplanes. The airplanes have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. This design feature is flight attendant seats mounted on movable lavatory doors. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: This action is effective on Airbus on April 3, 2023.

FOR FURTHER INFORMATION CONTACT: Shannon Lennon, Human Machine Interface, AIR–626, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, Washington 98198; telephone and fax 206–231–3209; email *shannon.lennon@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On October 27, 2020, Airbus SAS applied for a change to Type Certificate No. A28NM for flight attendant seats mounted on movable lavatory doors in A320–200 Series Model A320–251N, –252N, –253N, –271N, –272N, and –273N (known as A320neo) airplanes and A321–200 Series Model A321–251NX, –252NX, –253NX, –271NX, and -272NX (known as A321neo) airplanes. These airplanes are twin-engine, transport category airplanes. The A320neo has a maximum passenger seating capacity of 179 and the A321neo has a maximum passenger seating capacity of 244.

The applicable airworthiness requirements do not contain adequate or appropriate safety standards for this new lavatory door-mounted flight attendant seat. Section 25.785 of title 14, Code of Federal Regulations (14 CFR) specifies certain requirements for flight attendant seats but did not consider flight attendant seats mounted on movable structure such as lavatory doors and, therefore, does not specifically address additional concerns associated with ensuring the flight attendant seats are safe to occupy when necessary. Therefore, special conditions are necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

Type Certification Basis

Under the provisions of title 14, Code of Federal Regulations (14 CFR) 21.101, Airbus must show that the A320neo and A321neo airplanes, as changed, continue to meet the applicable provisions of the regulations listed in Type Certificate No. A28NM or the applicable regulations in effect on the date of application for the change, except for earlier amendments as agreed upon by the FAA.

If the Administrator finds that the applicable airworthiness regulations (*e.g.,* 14 CFR part 25) do not contain adequate or appropriate safety standards for the Airbus A320neo and A321neo airplanes because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same novel or unusual design feature, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Airbus A320neo and A321neo airplanes must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.101.

Novel or Unusual Design Features

The Airbus A320neo and A321neo airplanes will incorporate the following novel or unusual design features:

Flight attendant seats mounted on movable lavatory doors.

Discussion

Airbus will install, in A320neo and A321neo airplanes, flight attendant seats on lavatory doors. The lavatory door-mounted flight attendant seat is intended to be occupied during all phases of flight, including takeoff and landing.

Flight attendant seats are typically floor-mounted or wall-mounted on a non-movable structure (*e.g.,* mounted on monument walls) which is attached to the airplane structure. The installation of a flight attendant seat on movable structure, such as a lavatory door, introduces certain issues that must be addressed to ensure safety of the attendant seat occupant. Such considerations include ensuring that the lavatory door is closed (fixed) when the flight attendant seat is to be occupied and ensuring that the lavatory door lock mechanism is reliable after frequent use of the lavatory door. Additionally, the lavatory door, door locking mechanism, and door housing will need to withstand certain loading conditions as that structure is part of the load path

between seat structure and airplane structure.

Other issues include ensuring that the flight attendant seat is available to use when necessary, which requires a way to ensure the lavatory is not occupied when the flight attendant seat must be occupied. Also, additional maintenance requirements will need to be considered to establish the reliability of the lavatory door locking mechanism, as it is a feature that will be frequently used.

The special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

Discussion of Comments

The FAA issued Notice of Proposed Special Conditions No. 25–22–03–SC for the Airbus A320–200 Series Model A320–251N, –252N, –253N, –271N, –272N, and –273N, and A321–200 Series Model A321–251NX, –252NX, –253NX, –271NX, and –272NX airplanes, which was published in the **Federal Register** on October 17, 2022 (87 FR 62739). The FAA received responses from two commenters—Air Line Pilots Association, International (ALPA); and The Boeing Company (Boeing). ALPA provided a general comment that they support the special conditions. Boeing provided four comments summarized as follows:

Comment Summary 1: Boeing suggested a revision of the text of proposed special condition (a) for purposes of identifying additional components of the flight attendant seat-system primary load path that must be shown to withstand the emergency landing dynamic loads including the lavatory door hinge and lavatory door-interfacing wall panels. Boeing states that the proposed special condition does not address the structural interface area surrounding the lavatory door attachment to the lavatory housing and that its suggested revision is consistent with guidance provided in section 9.c.(3)(b) of Advisory Circular 25.562–1B, ''Dynamic Evaluation of Seat Restraint Systems and Occupant Protection on Transport Airplanes,'' for similar installations. Boeing also suggested a revision of the text of proposed special condition (a) for purposes of clarifying that both the flight attendant seat installation and lavatory attachment to the airplanes' structure must meet the requirements of 14 CFR 25.561.

FAA Response: No change to this special condition is necessary. The proposed special condition (a) was intended to describe the lavatory structure that must withstand the emergency landing dynamic loads prescribed in § 25.562 vs. the lavatory structure that must meet the requirements of § 25.561. It is not necessary for these special conditions to identify that the seat installation meet the requirements of § 25.561 because that requirement already exists via § 25.785(b) and is therefore, outside the scope of these special conditions. It is also sufficient to identify that the lavatory door-mounted flight attendant seat-system primary load path must meet the emergency landing dynamic loads without identifying all components of that load path because structural components such as the lavatory door, door hinge, and interfacing lavatory panels are readily recognized as part of the load path. The exception is the lavatory door locking mechanism. This is specifically emphasized in this special condition as it is a movable assembly that is expected to be frequently manipulated by the airplane occupants and, as such, a novel feature in the flight attendant seat load path.

Comment Summary 2 and 3: Boeing recommended a revision to special condition (b)(1) that would require a design feature that clearly indicates positive engagement of all latches or mechanisms required to secure the lavatory door, including a placard describing the required steps to secure and verify engagement of the door. Boeing also recommends a revision to special condition (c) that would require a placard near the flight attendant seat that instructs the flight attendant to perform a visual inspection of the lavatory interior to ensure the lavatory is not occupied before engaging the door and occupying the attendant seat. Boeing states that a placard should be included to ensure that the lavatory is not occupied when use of the flight attendant seat is necessary.

FAA Response: No changes to special conditions (b) or (c) are necessary. While the recommended design features may constitute an acceptable means of compliance, other means may be utilized that could also be acceptable. Therefore, it is not necessary or appropriate to require specific design features for these special conditions.

Comment Summary 4: Boeing recommended a revision to special condition (e) to require that the lavatory door hinge mechanism, along with the locking mechanism, must meet the requirements of § 25.561 and other foreseeable operating conditions in order to show that these mechanisms are reliable within their expected life cycle. This recommendation includes requiring static testing beyond the life-cycle testing of the locking and hinge mechanisms to ensure adequate structural capability over the expected lifetime of the installation.

FAA Response: Special condition (e) is intended to ensure that the movable parts of the lavatory door assembly remain reliable within the expected life cycle of the installation. The lavatory door locking mechanism is specifically identified as it will be routinely manipulated by aircraft occupants as they utilize the lavatory. However, the door hinge is also a movable part that is applicable to this special condition even though it does not get repositioned in service like the lavatory door lock. For this reason the FAA agrees with the recommendation to include the lavatory door hinge within the text of special condition (e). While the FAA agrees that the approach of conducting static testing of the lavatory door hinge and locking mechanisms beyond the life-cycle testing constitutes an acceptable means of compliance, other means may be utilized that could also be acceptable. Therefore, it is not necessary to require this specific compliance approach in the special condition. Proposed special condition (e) is revised as follows:

The lavatory door locking and hinge mechanisms must be shown to withstand frequent use. Potential deterioration of moving parts must be addressed to show that the locking and hinge mechanisms are reliable within the established life cycle. Accordingly, instructions for continued airworthiness must also be defined for the locking and hinge mechanisms.

All other special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions are applicable to the Airbus A320 Series Model –251N, –252N, –253N, –271N, –272N, –273N (known as A320neo) and A321 Series Model –251NX, –252NX, –253NX, –271NX, –272NX (known as A321neo) airplanes. Should Airbus apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, these special conditions would apply to that model as well.

Conclusion

This action affects only a certain novel or unusual design feature on A320 Series Model –251N, –252N, –253N, –271N, –272N, –273N (known as A320neo) and A321 Series Model –251NX, –252NX, –253NX, –271NX, –272NX (known as A321neo) airplanes. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

Authority Citation

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for the Airbus A320 Series Model –251N, –252N, –253N, –271N, –272N, –273N (known as A320neo) and A321 Series Model –251NX, –252NX, –253NX, –271NX, –272NX (known as A321neo).

(a) The lavatory door-mounted flight attendant seat-system primary load path, including the flight attendant seat, seat attachment means, the lavatory door, and lavatory door attachment to the lavatory housing—including the locking mechanism—must be shown to be capable of withstanding the emergency landing dynamic loads in accordance with § 25.562. The lavatory housing and the lavatory attachment to the airplane structure must comply with the requirements of § 25.561.

(b) Means must be provided to ensure that the flight attendant seat can only be used if the lavatory door is securely locked in the closed position.

(1) The procedures for establishing that the lavatory door is closed and locked prior to use of the flight attendant seat must become part of the cabin crew training.

(2) The effects of structural deformation of the lavatory door and lavatory door housing must be addressed to prevent unlocking or failure of the locking mechanism.

(c) Means must be provided to ensure that the lavatory is not occupied so that the flight attendant seat is available when necessary.

(d) Means must be provided to ensure that no one is inadvertently trapped inside the lavatory when the lavatory door is locked to facilitate use of the flight attendant seat.

(e) The lavatory door locking and hinge mechanisms must be shown to withstand frequent use. Potential deterioration of moving parts must be addressed to show that the locking and hinge mechanisms are reliable within their established life cycles. Accordingly, instructions for continued airworthiness must also be defined for the locking and hinge mechanisms.

Issued in Kansas City, Missouri, on February 28, 2023.

Patrick R. Mullen,

Manager, Technical Innovation Policy Branch, Policy and Innovation Division, Aircraft Certification Service.

[FR Doc. 2023–04424 Filed 3–2–23; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–1253; Project Identifier MCAI–2022–00698–T; Amendment 39–22349; AD 2023–04–02]

RIN 2120–AA64

Airworthiness Directives; Gulfstream Aerospace LP Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Gulfstream Aerospace LP Model Gulfstream G280 airplanes. This AD was prompted by a determination that the existing wet runway performance tables in the airplane flight manual (AFM) may not provide an acceptable level of safety. This AD requires revising the existing AFM to incorporate new wet runway performance tables, as specified in a Civil Aviation Authority of Israel (CAAI) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective April 7, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 7, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA–2022–1253; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

• For material incorporated by reference in this AD, contact CAAI, P.O. Box 1101, Golan Street, Airport City, 70100, Israel; telephone 972–3–9774665; fax 972–3–9774592; email *aip@mot.gov.il.* You may find this material on the CAAI website at *caa.gov.il.*

• You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available in the AD docket at regulations.gov under Docket No. FAA–2022–1253.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206–231–3225; email *dan.rodina@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Gulfstream Aerospace LP Model Gulfstream G280 *airplanes.* The NPRM published in the **Federal Register** on October 5, 2022 (87 FR 60344). The NPRM was prompted by AD ISR–I–97–2022–04–9, dated May 1, 2022, issued by the Civil Aviation Authority of Israel (CAAI), which is the aviation authority for Israel (CAAI AD ISR–I–97–2022–04–9) (also referred to as the MCAI). The MCAI states that the existing wet runway performance tables in the AFM may not provide an acceptable level of safety, and that the wet runway performance tables have been updated in the Performance section of the G280 AFM, Revision 10.

In the NPRM, the FAA proposed to require revising the existing AFM to incorporate new wet runway performance tables, as specified in CAAI AD ISR–I–97–2022–04–9. The FAA is issuing this AD to address the existing AFM wet runway performance tables that could allow the airplane to experience runway excursions or overruns during takeoff.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA–2022–1253.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from one individual. The following presents the comments received on the NPRM and the FAA's response to each comment.